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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/691,711	10/18/2000	Jens Wildhagen	450117-02749	4972

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EXAMINER

TRAN, KHANH C

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 10/24/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/691,711

Applicant(s)

WILDHAGEN, JENS

Examiner

Khanh Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7 .
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reich U.S. Patent 4,827,515.

Regarding claim 1, Reich discloses a digital demodulator demodulating and separating individual components of a digitized stereo multiplex signal, wherein the individual components includes the amplitudes of the stereo-sum signal ss, the demodulated stereo-difference signal df, and the pilot carrier. The digital demodulator, as shown in figure 1, includes a phase locked loop (PLL) that is made up with a variable oscillator vo and the carrier conditioning circuit tr. The stereo-sum signal ss is produced by a second decimation circuit d2, followed by a fifth low-pass filter b5. The quadrature component pv of the pilot signal ps is amplified by an amplifier v and then applied as a control signal st to the variable oscillator vo that is part of the PLL described above. The PLL produces 5 carriers t1, t2, t3, t4, t5, wherein carriers t1 and t2 are applied to the quadrature demodulator q1 to derive the in-phase component pu and the quadrature component pv of the pilot signal ps. The fundamental frequency of the first and second carriers t1, t2 is equal to the pilot frequency fp. However, Reich does not state explicitly states that the PLL receives the decimated stereo-sum signal as input signal as claimed

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in the instant application. Nevertheless, the quadrature component p_v of the pilot signal is derived from the decimated signal ds' that also produces the stereo-sum signal ss through the low pass filter b_5 . It would have been apparent to one skill in the art that the stereo-sum signal ss as taught by Reich is indirectly inputted to the PLL, which in turn produce the carriers to separate individual components of the input digitized stereo multiplex signal s_x .

Regarding claim 2, it would be obvious that from figure 1, the signal ds' producing the stereo-sum signal ss is decimated twice by a first decimation circuit d_1 , and then, by a second decimation circuit d_2 .

Allowable Subject Matter

2. Claims 3-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature in claim 2 "further decimated by a decimation factor of E " must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Conclusion

4. The prior art made of record and not relied upon could be considered pertinent's to applicant's disclosure:

Den Braber U.S. Patent 5,440,586 discloses "Receiver having Reduced Influence of Oscillator Radiation and Parasitic Crosstalk Effects on Gain Control".

Smith U.S. Patent 3,999,132 discloses "Stereo Inhibit Circuit".

Richards, Jr. U.S. Patent 5,202,924 discloses "Stereo FM Radio Receiver with Variable Band Pass Stereo Decoder".

Den Braber U.S. Patent 5,966,400 discloses "Receiver".

Hilbert et al. U.S. Patent 4,159,398 discloses "Stereo Presence Signal for An AM Stereo System".

Kahn U.S. Patent 5,023,909 discloses "Multi-System AM Stereo Receiver having Preferred Mode of Operation".

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 703-305-2384. The examiner can normally be reached on Tuesday - Friday from 08:00 AM - 05:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 703-306-3034. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3800.

KCT


MOHAMMAD H. GHAYOUR
PRIMARY EXAMINER